Response ID:692 Data

1. BOSC 2017 Nominations

Self Nomination:

Yes

Nominator Information

First Name

Last Name

Nominator Title

Street Address

City

State

Postal Code

Email Address

Phone Number

Mobile Phone

Nominee Information

First Name

Jerad

Last Name

Bales

Nominee Title

Executive Director, CUAHSI

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jdbales@cuahsi.org

Phone Number

339-933-4660

Mobile Phone

Exemption 6

Employment Information

Place of Employment/Work:

Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI)

Work Street Address

150 Cambridgepark Drive, Suite 203

Work City

Cambridge

Work State:

Massachusetts

Work Postal Code

02140

Work Phone Number

339-933-4660

Work Email Address

jdbales@cuahsi.org

Sector

Other - Write In (Required): Non-Profit

Qualifications

Primary Area(s) of Expertise

I have expertise in all aspects of water-resources, as described below.

Committee Preference(s)

Homeland Security Subcommittee
Safe and Sustainable Water Resources Subcommittee
Sustainable and Healthy Communities Subcommittee

Statement of Interest

I view membership on EPA's Science Advisory Board as a way to continue to address the Nation's important water-resources issues, to which I have devoted my career. The EPA is faced with many science and technical challenges in a time with limited resources. Consequently, it is important that EPA devote limited resources to the most pressing problems and to address those problems in a scientifically-defensible manner. My background has provided me with the experience and tools to help provide science guidance to EPA's Safe and Sustainable Water Resources Subcommittee.
During my career, I have conducted water-resources related scientific investigations on a variety of topics including water-quality monitoring, water quantity and water-quality modeling, water-related hazards, and advancement of water sensing instrumentation. During my time with USGS, I focused on partner-driven solutions, as USGS scientists generally receive much of their funding from partner organizations rather than through the Federal appropriations process. The focus on partners and public-private partnerships continues as CUAHSI Executive Director, as CUAHSI is charged with providing support to the scientific community. A current focus of CUAHSI is enabling the archival and discovery of citizen monitoring data, a role that we see as being critically important with the growing capabilities and declining cost of water sensors, and with the decline of government support for monitoring activities.

Skills/qualifications related to committee preference(s) specified

I have expertise in all aspects of water-resources, including surface water, groundwater, water quality, environmental flows, and water policy. I have conducted scientific studies related to water resources across the U.S. and abroad, and have served as Chair, Co-Chair, and Member of high-level Federal and professional committees. I have worked with stakeholders across all levels of government to foster solutions to difficult water-resources problems.

Since January 2017, I have been Executive Director and President of CUAHSI, a 501(c)3 non-profit organization. CUAHSI is supported primarily by the National Science Foundation, but with significant funding support from other government agencies and foundations. CUAHSI represents more 130 U.S.

universities and water-science related organizations with the mission to develop and maintain science-support infrastructure and services for the advancement of water science and management. CUAHSI develops water data discovery services, publishes and archives water data; supports water research activities; and promotes water education and training.

I am responsible for all aspects of the corporation, including establishment of the overall strategy and business plan, financial and personnel management, and outreach to the water-resources community. I created the initiative to address citizen monitoring, and CUAHSI now is working, for example, with the Massachusetts Bay National Estuary Program and an NGO to support the needs of the more than 75 citizen monitoring groups in the Mass Bay watershed. I also leading CUAHSI to assume a growing role in supporting and enhancing the National Water Model; there currently are plans to begin incorporating water-quality predictions in the model within the next 2 – 5 years.

At USGS, where I had a 30-year career, my most recent position was as Chief Scientist for Water. As Chief Scientist, I was the Senior Executive responsible for a $45M hydrologic research program, a $40M program of technical transfer, quality assurance, water-quality analyses and methods development, hydrologic instrumentation, and geophysical research for water resources at USGS, and more than 300 scientists and support staff. I established USGS hydrologic research directions, and coordinate USGS water-resources activities within USGS and with Federal, non-Federal, and a variety of international partners.

I provided scientific and management leadership for a diverse program of water resources monitoring, assessment, and research activities. During my tenure, I re-oriented the research program from one of curiosity-driven research to a mission-drive research organization that focused on the current and anticipated science needs for conducting the water mission of the USGS and of natural resource managers. I also re-vitalized the USGS Water Resources Research Institute program so that there now is a much stronger partnership between the Institutes and USGS Water programs.

Other Relevant Information

Other science leadership activities have included:
• DOI Representative to the Steering Committee for the Federal Multiagency Collaboration on Unconventional Oil and Gas. The committee consisted of one political appointee and one career executive from each partner agency. I also was a member of the Technical Committee for the Federal Multiagency Collaboration on Unconventional Oil and Gas. I led the Water Availability theme, developing water availability research plans and inter-agency coordination, and contribute to the Water Quality theme.
• Chair, U.S. National Committee for the UNESCO International Hydrological Programme (IHP). I coordinated U.S. IHP with the partner organizations and the U.S. UNESCO Mission, and represent the U.S. to the IHP Secrertariat and Intergovernmental Council, including biennial meetings at UNESCO headquarters and the World Water Forum in South Korea.
• Co-Chair (with EPA) CEQ Water Resources Adaptation to Climate Change Workgroup.
• Member, Science Steering Committee for the National Science Foundation's Critical Zone Observatories (this activity continues).
• USGS Representative to the Governance Board for the Integrated Water Resources Science and Services activity.
• USGS Water Representative to GEO (Group on Earth Observations).

I developed (with an OSTP and academic colleague) in 2014 the Open Water Data Initiative concept, and have since promoted the initiative through various formal and informal briefings, including Congressional Research Service, National American Water Resources Assoc. conference, Google, and the Aspen-Nicholas Water Institute. Most recently, the Aspen Institute published a report (Internet of Water) that grew out of this initiative.

Prior to my time as a Senior Executive, I held a series of research and management positions in North Carolina. These activities are detailed in my resume.

I have published extensively in the scientific literature, and regularly am asked to give presentations to both technical and non-technical groups.

CV/Resume URL

2. CV/Resume

Please upload your CV/ Resume.

Resume_2017-06.pdf

3.

BOSC Nomination

Jun 30, 2017 12:25:21 Success: Email Sent to: tracy.tom@epa.gov

4. Thank You for your Submission!

JERAD D. BALES

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WORK EXPERIENCE

Exeutive Director, Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI)
January 2017 - ; Cambridge, MA

I am Executive Director and President of CUAHSI, a 501(c)3 non-profit organization. CUAHSI is supported primarily by the National Science Foundation, but with significant funding support from other government agencies and foundations.

CUAHSI represents more 130 U.S. universities and water-science related organizations with the mission to develop and maintain science-support infrastructure and services for the advancement of water science and management. CUAHSI develops water data discovery services, publishes and archives water data; supports water research activities; and promotes water education and training.

I am responsible for all aspects of the corporation, including establishment of the overall strategy and business plan, financial and personnel management, and outreach to the water-resources community.

Acting Associate Director (AD) for Water Resources, U.S. Geological Survey
January – May 2012 ; March 2013 – May 2014 ; Reston, VA

In this position, I reported to the Director of the U.S. Geological Survey (USGS) and was the Senior Executive responsible for an approximately $200M Federal program of water resources monitoring, assessments, and research, and about 500 employees. I also was responsible for coordinating activies associated with $250M of funding provided by partners to support USGS water-resources activities. In this position, I did the following:

- Established overall directions of the USGS Water Mission Area, in consultation with other USGS Mission Areas and the Department of the Interior (DOI).
- Developed, negotiated, and defended water-resources budgets with Office of Management and Budget, DOI, and Congressional staff.
- Represented USGS water activities to a wide range of stakeholders, including Congress, other Federal agencies, State and Tribal partners, and international organizations.
- Improved communication and collaboration between the Water Mission Area, and Regions.

During my time as Acting AD for Water, I successfully guided the USGS water programs through the sequester of 2013, communicated and defended the 2014 and 2015 budgets to Congress and stakeholders, and developed 2016 budget plans.

USGS Chief Scientist for Water
2009 – 2016; Reston, VA

As Chief Scientist for Water, I was the Senior Executive responsible for a $45M hydrologic research program, a $40M program of technical transfer, quality assurance, water-quality analyses and methods development, hydrologic instrumentation, and geophysical research for water resources at USGS, and more than 300 scientists and support staff. I establish USGS hydrologic research directions, and coordinate USGS water-resources activities within USGS and with Federal, non-Federal, and a variety of international partners. I provide scientific and management leadership for a diverse program of water resources monitoring, assessment, and research activities. During my tenure, I have re-oriented the research program from one of curiosity-driven research to a mission-drive research organization that focuses on the current and anticipated science needs for conducting the water mission of the USGS and of natural resource managers. I also have re-vitalized the USGS Water Resources Research Institute program so that there now is a much stronger partnership between the Institutes and USGS Water programs. In addition:

- I co-chaired the Office of Science and Technology Policy's Subcommittee on Water Availability and Quality (SWAQ). The SWAQ is perhaps the only venue through which all 20+ Federal agencies involved in any kind of water-related activity meet to identify science, technology, and policy needs, as well as coordination opportunities. As Co-Chair, I led development of a report to Congress on water monitoring and climate change. I also led development of a multi-agency Water Science and Technology 2016 Budget Initiative through the Office of Science and Technology Policy.
- I regularly presented to a wide range of audiences. A list of recent presentations follows.
- I developed (with an OSTP and academic colleague) in 2014 the Open Water Data Initiative concept, and have since promoted the initiative through various formal and informal briefings, including Congressional Research Service, National American Water Resources Assoc. conference, Google, and the Aspen-Nicholas Water Institute.

Director North Carolina Water Science Center, USGS
2007 – 2009; Raleigh, NC.

As Director of the North Carolina USGS Water Science Center, I was responsible for about 70 employees with a program totaling $10M - $12M. About two-thirds of this program was contributed by more than 30 individual funding partners, which meant that the science activities needed to be responsive to partner needs, timely, and of the highest scientific quality, or partners would withdraw funding.

- I continued to publish in the scientific literature and was recognized as a leading water resources expert in North Carolina, typically giving more than a dozen formal presentations/yr.
- I led development of a totally new communications application for sharing water data. This application, now known as USGS WaterAlert, ultimately was adopted and implemented nationally (see http://water.usgs.gov/wateralert/)
- I increased scientific diversity at the Center, focusing on bringing in under-represented scientists and technicians to the Center.

Hydrologist and Supervisory Hydrologist, USGS
1986 – 2007; Raleigh, NC

- I conducted water-resources investigations throughout the US, addressing water availability and quality issues in streams, rivers, reservoirs, and estuaries. This work was funded by more than 25 separate Federal, State, local organizations with interests in managing water resources and resolving conflicts.
- During 2003 -2008, I was principal investigator on a USAID-supported flood mitigation project, traveling to India 6 times, meeting and negotiating with US and Indian officials, and developing flood mitigation tools as pilot projects for two regions in India.
- I developed an innovative approach for producing and displaying flood-inundation maps (http://pubs.usgs.gov/sir/2007/5032/pdf/SIR2007-5032.pdf), which subsequently became a national USGS thrust (http://water.usgs.gov/osw/flood_inundation/). Standards I produced for flood inundation mapping were adopted by the National Weather Service for use in their flood inundation maps.
- I have published more than 120 reports, articles, and other publications throughout my career, with the majority of the publications coming during this period.

REPRESENTATIVE EXTERNAL LEADERSHIP (last 3 years)

- 2017 – 2019: Member, Board of Directors, American Water Resources Association.
- 2014 – 2015: DOI Representative the Steering Committee for the Federal Multiagency Collaboration on Unconventional Oil and Gas. The committee consists of one political appointee and one career executive from each partner agency. (see also above).
- 2012 – 2016: Member, Technical Committee for the Federal Multiagency Collaboration on Unconventional Oil and Gas. I lead the Water Availability them, developing water availability research plans and inter-agency coordination, and contribute to the Water Quality theme.
- 2010 – 2016: Co-Chair (with EPA) Subcommittee on Water Availability and Quality (see above).
- 2014 – 2016: Chair, U.S. National Committee for the UNESCO International Hydrological Programme (IHP). I coordinate U.S. IHP with the partner organizations and the U.S. UNESCO Mission, and represent the U.S. to the IHP Secrertariat and Intergovernmental Council.
- 2013 – 2016: Co-Chair (with EPA) CEQ Water Resources Adaptation to Climate Change Workgroup.
- 2011 – present: Member, Science Steering Committee for the National Science Foundation's Critical Zone Observatories.
- 2011 – 2015: USGS Representative to the Governance Board for the Integrated Water Resources Science and Services activity.
- 2011 – 2016: USGS Water Representative to GEO (Group on Earth Observations).

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REPRESENTATIVE INVITED SCIENTIFIC PRESENTATIONS (last 3 years)

Groundwater and the FEW Nexus, Interdisciplinary Workshop on Innovation at the Food-Energy-Water Nexus, May 2017, Marquette University, Milwaukee, WI.

Water and Its Role in the Food, Energy, Water Nexus, India – US Workshop on Addressing the FEW Nexus, April 2017, Bangalore, India.

State of Water Quality Monitoring, Workshop on Opportunity and Value for Coordinated Nutrient Monitoring: Water, Deposition, and Data Perspectives, March 2017, Reston, VA.

Water Management in a Time of Extremes, Distinguished Lecture Series, University of Tennessee, September 2016, Knoxville, TN.

Challenges for Improved Groundwater Management, EPA Robert S. Kerr Environmental Research Center 50th Anniversary Event and Technical Symposium, August, 2016, Ada, OK.

Hydrologic Monitoring Strategies, Applications, and Research Directions, Dialogue for the Establisment of the Hydrology Data Centre, Johannesburg, South Africa, June 2016.

Changing Water Patterns and Availability, EPRI ENV-Vision Conference on the Energy – Water Nexus, Washington, DC, May 2016.

The Energy-Water Nexus—A Geoscience Perspecitve, AWRA Spring Speciality Conference, Invited Luncheon Speaker, Achorage, AK, April 2016.

Drought in a Warming World, Department of the Interior Museum Series, Washington, DC, February 2016.

The UNESCO IHP Water Adventure. Geological Society of America Annual Meeting, Special Session on the 75th Anniversary of UNESCO, Baltimore, MD, November 2015.

Water Management in a Time of Extremes. U.S. State Department Workshop on Integrated Water-Resource Techniques and Remote Sensing Applications in Support of Water-Resource Assessments in Central Asian Countries, Astana Kazakhstan, September 2015.

National Action Plan for Managing Freshwater Resources in a Changing Climate. American Water Resources Speciality Conf. on Climate Change Adaptation, New Orleans, LA ; June 2015.

Some Thoughts on Integrating Public Sector, Private Sector, and Crowd-Sourced Data. Aspen-Nicholas Water Institute Forum, Aspen, CO; May 2015.

Approaches for Assessing Water Availability. World Water Forum Daegu, Korea; April 2015.

Climate Change and Water Resources Management. North Carolina Water Resources Symposium, Raleigh, NC; March 2015.

Research on the Watershed: USGS Perspectives. 5th Interagency Conf. for Research on the Watershed, Charleston, SC; March 2015.

Unconventional Oil and Gas Development and Water Availability. Tri-Agency (USGS, EPA, DOE) Workshop on Progress in Understanding Impacts of Unconventional Oil and Gas on the Environment, Reston, VA, January 2015.

U.S. National Water Supply and Demand: The USGS National Water-Use Information System. GAO Municipal Water Technology Workshop, Washington, DC; January 2015.

Information for Understanding Current and Future Streamflow Conditions. FEMA Technical Mapping Advisory Committee, Alexandria, VA; December 2014.

Progress in Water-Resources Data Collection and Dissemination, 1974 – 2014, and Future Outlook. AWRA National Converence, Tysons Corner, VA; November 2014.

Open Water Data: What It Means at the USGS. AWRA National Conf., Tysons Corner, VA; November 2014.

Climate Change and Floods: What Do We Know ? International Symp. On Weather and Climate Extremes, Food Security, and Biodiversity, George Mason University; October 2014.

Potential SAR Applications for Water Resources, NI-SAR Applications Workshop. Reston, VA; October 2014.

Current Scientific Developments and Future Needs in Water Resources. AAAS Mini-Forum on Water, Washington, DC; October 2014

Floods in a Changing Climate. 6th International Conference on Flood Management , Sao Paulo, Brazil; September 2014.

U.S. Geological Survey Surface and Groundwater Monitoring Systems. Western States Water Council, San Diego, CA; June 2014.

U.S. Geological Survey Data and Science in Support of Floodplain Management. 2014 Association of State Floodplain Managers 38th Annual Conference, Seattle, WA; June 2014.

Water Quality Issues Related to Unconventional Oil and Gas Development. Shale UK Summit 2014, London, England; March 2014.

Water, Energy, and Food Production: Observing, Understanding, Forecasting. 4th University Water Institute Symposium, Gainesville, FL; February 2014.

EDUCATION

Ph.D. Civil Engineering (Water Resources Engineering), Univ. of Texas, Austin; 1986.
M.S. Civil Engineering (Envr.l Engineering), Univ. of Tennessee, Knoxville; 1978.
B.S. Civil Engineering, Univ. of Tennessee, Knoxville; 1977.